0590/1204 #2

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RAW SEQUENCE LISTING DATE: 12/07/2001
PATENT APPLICATION: US/09/987,357 TIME: 12:55:54

Input Set : N:\Crf3\RULE60\09987357.txt
Output Set: N:\CRF3\12072001\I987357.raw

<110> APPLICANT: Carmichael, David F
Anderson, David C
Stricklin, George P
Welgus, Howard G
<120> TITLE OF INVENTION: Human Collagenase Inhibitor, Recombinant Vector System For Using Same And Recombinant-DNA Method For Manufacture Of Same
<130> FILE REFERENCE: Serial No. 09/452,817
<140> CURRENT APPLICATION NUMBER: 09/987,357
<141> CURRENT FILING DATE: 2001-11-14
<150> PRIOR APPLICATION NUMBER: 09/452,817
<151> PRIOR FILING DATE: 1999-12-01
<150> PRIOR APPLICATION NUMBER: 08/474,553
<151> PRIOR FILING DATE: 1995-06-07
<150> PRIOR APPLICATION NUMBER: 08/050,739
<151> PRIOR FILING DATE: 1993-04-21
<150> PRIOR APPLICATION NUMBER: 07/853,018
<151> PRIOR FILING DATE: 1992-03-18
<150> PRIOR APPLICATION NUMBER: 07/517,475
<151> PRIOR FILING DATE: 1990-05-01
<150> PRIOR APPLICATION NUMBER: 07/320,923
<151> PRIOR FILING DATE: 1989-03-08
<150> PRIOR APPLICATION NUMBER: 06/784,319
<151> PRIOR FILING DATE: 1985-10-04
<150> PRIOR APPLICATION NUMBER: 06/699,181
<151> PRIOR FILING DATE: 1985-02-05
<160> NUMBER OF SEQ ID NOS: 20
<170> SOFTWARE: PatentIn Ver. 2.0
<210> SEQ ID NO: 1
<211> LENGTH: 184
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 1

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Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
 1               5                  10                  15
Leu Val Ile Arg Ala Lys Phe Val Gly Thr Pro Glu Val Asn Gln Thr
            20                  25                  30
Thr Leu Tyr Gln Arg Tyr Glu Ile Lys Met Thr Lys Met Tyr Lys Gly
        35                  40                  45
Phe Gln Ala Leu Gly Asp Ala Ala Asp Ile Arg Phe Val Tyr Thr Pro
    50                  55                  60
Ala Met Glu Ser Val Cys Gly Tyr Phe His Arg Ser His Asn Arg Ser
65                  70                  75                  80
Glu Glu Phe Leu Ile Ala Gly Lys Leu Gln Asp Gly Leu Leu His Ile
                85                  90                  95
Thr Thr Cys Ser Phe Val Ala Pro Trp Asn Ser Leu Ser Leu Ala Gln
            100                 105                 110
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72 Arg Arg Gly Phe Thr Lys Thr Tyr Thr Val Gly Cys Glu Glu Cys Thr
73         115                 120                 125
75 Val Phe Pro Cys Leu Ser Ile Pro Cys Lys Leu Gln Ser Gly Thr His
76     130                 135                 140
78 Cys Leu Trp Thr Asp Gln Leu Leu Gln Gly Ser Glu Lys Gly Phe Gln
79 145                 150                 155                 160
81 Ser Arg His Leu Ala Cys Leu Pro Arg Glu Pro Gly Leu Cys Thr Trp
82                 165                 170                 175
84 Gln Ser Leu Arg Ser Gln Ile Ala
85             180
88 <210> SEQ ID NO: 2
89 <211> LENGTH: 106
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
93 <400> SEQUENCE: 2
94 Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
95  1               5                  10                  15
97 Leu Val Ile Arg Ala Lys Phe Val Gly Thr Pro Glu Val Asn Gln Thr
98             20                  25                  30
100 Thr Leu Tyr Gln Arg Tyr Glu Ile Lys Met Thr Lys Met Tyr Lys Gly
101          35                  40                  45
103 Phe Gln Ala Leu Gly Asp Ala Ala Asp Ile Arg Phe Val Tyr Thr Pro
104     50                  55                  60
106 Ala Met Glu Ser Val Cys Gly Tyr Phe His Arg Ser His Asn Arg Ser
107  65                  70                  75                  80
109 Glu Glu Phe Leu Ile Ala Gly Lys Leu Gln Asp Gly Leu Leu His Ile
110                 85                  90                  95
112 Thr Thr Cys Ser Phe Val Ala Pro Trp Asn
113             100                 105
116 <210> SEQ ID NO: 3
117 <211> LENGTH: 38
118 <212> TYPE: PRT
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 3
122 Gly His Arg Arg Arg Ser Ser Ala Gln Arg Asp Thr Arg Glu Pro Thr
123  1               5                  10                  15
125 Met Ala Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala
126             20                  25                  30
128 Asp Ser Pro Ser Arg Ala
129          35
132 <210> SEQ ID NO: 4
133 <211> LENGTH: 22
134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
137 <400> SEQUENCE: 4
138 Met Ala Leu Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala
139  1               5                  10                  15
141 Asp Ser Pro Ser Arg Ala
142             20
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Input Set : N:\Crf3\RULE60\09987357.txt
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145 <210> SEQ ID NO: 5
146 <211> LENGTH: 703
147 <212> TYPE: DNA
148 <213> ORGANISM: Homo sapiens
150 <400> SEQUENCE: 5
151 gttgttgctg tggctgatag ccccagcagg gcctgcacct gtgtcccacc ccacccacag 60
152 acggccttct gcaattccga cctcgtcatc agggccaagt tcgtggggac accagaagtc 120
153 aaccagacca ccttatacca gcgttatgag atcaagatga ccaagatgta taaagggttc 180
154 caagccttag gggatgccgc tgacatccgg ttcgtctaca cccccgccat ggagagtgtc 240
155 tgcggatact tccacaggtc ccacaaccgc agcgaggagt ttctcattgc tggaaaactg 300
156 caggatggac tcttgcacat cactacctgc agttttgtgg ctccctggaa cagcctgagc 360
157 ttagctcagc gccggggctt caccaagacc tacactgttg gctgtgagga atgcacagtg 420
158 tttccctgtt tatccatccc ctgcaaactg cagagtggca ctcattgctt gtggacggac 480
159 cagctcctcc aaggctctga aaagggcttc cagtcccgtc accttgcctg cctgcctcgg 540
160 gagccagggc tgtgcacctg gcagtccctg cggtcccaga tagcctgaat cctgcccgga 600
161 gtggaagctg aagcctgcac agtgtccacc ctgttcccac tcccatcttt cttccggaca 660
162 atgaaataaa gagttaccac ccagcaaaaa aaaaaaggaa ttc 703
164 <210> SEQ ID NO: 6
165 <211> LENGTH: 432
166 <212> TYPE: DNA
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 6
170 ggccatcgcc gcagatccag cgcccagaga gacaccagag aacccaccat ggcccccttt 60
171 gacccctggc ttctgcatcc tgttgttgct gtggctgata gccccagcag ggcctgcacc 120
172 tgtgtcccac cccacccaca gacggccttc tgcaattccg acctcgtcat cagggccaag 180
173 ttcgtgggga caccagaagt caaccagacc accttatacc agcgttatga gatcaagatg 240
174 accaagatgt ataaagggtt ccaagcctta ggggatgccg ctgacatccg gttcgtctac 300
175 acccccgcca tggagagtgt ctgcggatac ttccacaggt cccacaaccg cagcgaggag 360
176 tttctcattg ctggaaaact gcaggatgga ctcttgcaca tcactacctg cagttttgtg 420
177 gctccctgga ac 432
179 <210> SEQ ID NO: 7
180 <211> LENGTH: 780
181 <212> TYPE: DNA
182 <213> ORGANISM: Homo sapiens
184 <400> SEQUENCE: 7
185 ggccatcgcc gcagatccag cgcccagaga gacaccagag aacccaccat ggcccccttt 60
186 gacccctggc ttctgcatcc tgttgttgct gtggctgata gccccagcag ggcctgcacc 120
187 tgtgtcccac cccacccaca gacggccttc tgcaattccg acctcgtcat cagggccaag 180
188 ttcgtgggga caccagaagt caaccagacc accttatacc agcgttatga gatcaagatg 240
189 accaagatgt ataaagggtt ccaagcctta ggggatgccg ctgacatccg gttcgtctac 300
190 acccccgcca tggagagtgt ctgcggatac ttccacaggt cccacaaccg cagcgaggag 360
191 tttctcattg ctggaaaact gcaggatgga ctcttgcaca tcactacctg cagttttgtg 420
192 gctccctgga acagcctgag cttagctcag cgccggggct tcaccaagac ctacactgtt 480
193 ggctgtgagg aatgcacagt gtttccctgt ttatccatcc cctgcaaact gcagagtggc 540
194 actcattgct tgtggacgga ccagctcctc caaggctctg aaaagggctt ccagtcccgt 600
195 caccttgcct gcctgcctcg ggagccaggg ctgtgcacct ggcagtccct gcggtcccag 660
196 atagcctgaa tcctgcccgg agtggaagct gaagcctgca cagtgtccac cctgttccca 720
197 ctcccatctt tcttccggac aatgaaataa agagttacca cccagcaaaa aaaaaaagga 780
199 <210> SEQ ID NO: 8

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Input Set : N:\Crf3\RULE60\09987357.txt
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200 <211> LENGTH: 55
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
204 <220> FEATURE:
205 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
206 5'-end of human TIMP-1 using preferred yeats
207 codons; + strand
209 <400> SEQUENCE: 8
210 gatccgtgca cttgtgttcc accacaccca caaactgctt tctgtaactc tgacc 55
212 <210> SEQ ID NO: 9
213 <211> LENGTH: 52
214 <212> TYPE: DNA
215 <213> ORGANISM: Artificial Sequence
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
219 5'-end of human TIMP-1 using preferred yeast
220 codons; - strand
222 <400> SEQUENCE: 9
223 aggtcagagt tacagaaagc agtttgtggg tgtggtggaa cacaagtgca cg 52
225 <210> SEQ ID NO: 10
226 <211> LENGTH: 75
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
233 <400> SEQUENCE: 10
234 gatccgcgat cggagtgtaa gaaatgtgca cttgcgttcc gccgcatccg cagactgctt 60
235 tctgcaactc tgacc 75
237 <210> SEQ ID NO: 11
238 <211> LENGTH: 72
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
245 <400> SEQUENCE: 11
246 aggtcagagt tgcagaaagc agtctgcgga tgcggcggaa cgcaagtgca catttcttac 60
247 actccgatcg cg 72
249 <210> SEQ ID NO: 12
250 <211> LENGTH: 35
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: Description of Artificial Sequence:
256 oligonucleotide
258 <400> SEQUENCE: 12
259 gatccgcgat cggagtgtaa gaaatgtgca cttgc 35
261 <210> SEQ ID NO: 13
262 <211> LENGTH: 36
263 <212> TYPE: DNA

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264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence:
268       oligonucleotide
270 <400> SEQUENCE: 13
271 ggaacgcaag tgcacatttc ttacactccg atcgcg                          36
273 <210> SEQ ID NO: 14
274 <211> LENGTH: 40
275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: Description of Artificial Sequence:
280       oligonucleotide
282 <400> SEQUENCE: 14
283 gttccgccgc atccgcagac tgctttctgc aactctgacc                      40
285 <210> SEQ ID NO: 15
286 <211> LENGTH: 36
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence:
292       oligonucleotide
294 <400> SEQUENCE: 15
295 aggtcagagt tgcagaaagc agtctgcgga tgcggc                          36
297 <210> SEQ ID NO: 16
298 <211> LENGTH: 9
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
305 <400> SEQUENCE: 16
306 aattggcag                                                       9
308 <210> SEQ ID NO: 17
309 <211> LENGTH: 9
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
316 <400> SEQUENCE: 17
317 tcgactgcc                                                       9
319 <210> SEQ ID NO: 18
320 <211> LENGTH: 138
321 <212> TYPE: DNA
322 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
325 <223> OTHER INFORMATION: Description of Artificial Sequence: artificial
326       OmpA leader sequence
328 <400> SEQUENCE: 18
329 gaattcgata tctcgttgga gatattcatg acgtattttg gatgataacg aggcgcaaaa 60
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